

**REMARKS**

**Summary Of The Office Action & Formalities**

**Status of Claims**

Claims 1-25 are all the claims pending in the application. By this Amendment, Applicant is canceling claims 2-10, 14-17, 19-22 and 24, amending claims 1, 11, 18, 23, and 25, and adding new claims 26-29. No new matter is added.

**Additional Fees**

Submitted herewith is a Petition for Extension of Time with fee.

**Information Disclosure Statement**

Applicant thanks the Examiner for initialing the references listed on forms PTO/SB/08 submitted with the Information Disclosure Statements filed on March 31, 2004 and April 30, 2004.

**Drawings**

Applicant is thankful for the favorable decision on the Petition for Acceptance of Color Photographs under 37 C.F.R. § 1.84 filed on September 15, 2004.

**Claim Rejections - 35 U.S.C. § 101**

Claims 1-3, 5-8, 10-14 and 16-25 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Applicant's foregoing amendments renders this rejection moot.

**Art Rejections**

1. Claims 1-6, 8, 10, 20-21 and 23-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujieda '697 (US 5,500,697) in view of Smolek (Michael K. Smolek et al.

“Current Keratoconus Detection Methods Compared with Neural Network Approach”,  
Investigative Ophthalmology & Visual Science, October 1997, Vol. 38, No. 11, pp. 2290-2299).

2. Claims 7 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over  
Fujieda ‘697 in view of Smolek, as applied to independent claims 1 and 20 above, and further in  
view of Bursell ‘001 (US 5,993,001).

3. Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujieda ‘697  
in view of Smolek, as applied to independent claim 1 above, and further in view of Lai ‘535 (US  
2005/0174535).

4 Claims 14-17 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over  
Fujieda ‘697, in view of Mammone ‘859 (US 5,796,859), and further in view of Ruiz ‘451 (US  
2002/0075451).

5. Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Mammone  
‘859 in view of Ruiz ‘451.

Applicant respectfully traverses.

**Claim Rejections - 35 U.S.C. § 103**

*1. Claims 1-6, 8, 10, 20-21 and 23-24 Over Fujieda ‘697 (US 5,500,697) In View Of Smolek  
(Michael K. Smolek et al. “Current Keratoconus Detection Methods Compared with Neural  
Network Approach”, Investigative Ophthalmology & Visual Science, October 1997, Vol. 38, No.  
11, pp. 2290-2299).*

Fujieda (US 5,500,697) discloses a corneal topography analysis system that obtains  
corneal curvature distribution over a wide region based on an index image projected on a cornea,  
and converts the corneal curvature distribution into a corneal refractive power distribution and  
display the corneal refractive power distribution.

Fujieda, however, only discloses a technique to analyze the corneal curvature distribution or the corneal refractive power distribution, but does not teach or suggest judging corneal topography including keratoconus (KC) and keratoconus suspect (KSC) using plural indexes characterizing topography of the cornea and a neural network.

Smolek, as shown in P2291 and P2292, discloses a technique that inputs 10 indexes characterizing three corneal topographies including a corneal shape into a neural network, and classifies (judges) keratoconus (KC), keratoconus suspects (KCS) and the other. Further, in order to train or test the neural network, the result of the corneal topography of 150 examinations are used. The corneal topography of the 150 examinations are classified into 9 different categories including keratoconus (KC), keratoconus suspects (KCS), normal (NRM), with-the-rule astigmatism (WTR), pellucid marginal degeneration (PMD) and the like.

However, the categories of corneal topography of 150 examinations are used for a basic data of the training or test of the neural network, and are not the corneal topography classified (or judged) by the neural network. In the neural network of Smolek, the corneal topography other than keratoconus (KC) and keratoconus suspects (KCS) is classified (judged) to “other”. Thus, the classification (judgment) is not enough for information for deciding whether or not the refractive surgery can be performed on the eye to be examined, or is not enough information for deciding whether or not a correction tool is suitable for the refractive surgery.

According to the present invention, “other” of the corneal topography which is classified by Smolek is further classified and the kinds of the corneal topography classified (judged) by the neural network is increased. Therefore, the present invention can accurately decide whether or not the refractive surgery can be performed on the eye to be examined, or decide whether or not a correction tool is suitable for the refractive surgery.

The rejection of claim 25 is obviated in view of the foregoing amendment to this claim.

In view of at least the foregoing distinctions, the Examiner is kindly requested to reconsider and withdraw the art rejections.

**New Claims**

For additional claim coverage merited by the scope of the invention, Applicant is adding new claims 26-29, which are believed to be allowable at least by reason of their respective dependencies.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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